

EXPLORING THE IMPACT OF ARTIFICIAL INTELLIGENCE ON HUMAN **RESOURCE PRACTICES**

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Abstract

This study focuses into how automation and artificial intelligence (AI) are changing important HR (human resources) tasks, with a particular emphasis on hiring, on boarding, and performance reviews. The development of AI and automation technology presents HR departments with hitherto untapped potential to improve productivity, accuracy, and strategic decision-making. This paper evaluates how automation and artificial intelligence (AI) are being incorporated into HR practices and the ensuing effects on organisational success through a thorough examination of recent literature and empirical data. The study focuses on advanced performance evaluation systems that offer current data and feedback, personalized training plans that adjust to each learner's needs, and AI-driven recruiting tools that expedite the sourcing and selection of candidates. The study also looks at the difficulties in implementing new technologies, such as privacy concerns, ethical dilemmas, and the possible replacement of HR positions. The results show that although automation and artificial intelligence (AI) can greatly enhance HR procedures, risk management requires cautious application and ongoing oversight. This study provides important insights on how to use automation and artificial intelligence (AI) to improve HR tasks, which will ultimately lead to more strategic and efficient human resource management for HR professionals, technology developers, and organizational executives.

Keywords: Artificial Intelligence; Human Resource Management Practices ; Recruitment; Training; Performance Management.

I INTRODUCTION

Artificial intelligence (AI) can be defined as the replication of human intellect in computers with human-like thought and behavior patterns. These sophisticated machines are capable of doing tasks like speech recognition, decision-making, and problem-solving-often more quickly and accurately than people. Since artificial intelligence (AI) is a technology that has rendered internet access possible, the Internet Society acknowledges that creating a trustworthy Internet requires a knowledge of the potential and problems presented by AI. There are certain important factors to take into account when it comes to people' trust in online resources as machine learning becomes more prevalent in goods and services. When discussing AI, a number of factors need to be taken into account, such as the socioeconomic effects; problems with transparency, bias, and accountability; new applications for data; security and safety 1328

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concerns; ethical dilemmas; and the ways in which AI promotes the development of new ecosystems. However, there are particular difficulties that AI faces in this complicated field, such as: decision-making that lacks transparency and interpretability; bias and data quality concerns; safety and security implications; accountability issues; and potentially disruptive effects on social and economic structures.

The Internet Society has established a set of principles and guidelines for what we think to be the basic "abilities" that underpin the value that the Internet offers after assessing the numerous factors and comprehending the various obstacles. In recent years, artificial intelligence (AI) has drawn more attention. The Internet has enabled innovation that has pushed artificial intelligence (AI) closer to our daily lives. These developments push artificial intelligence (AI) to the forefront of many contemporary discussions, coupled with curiosity in the technology's possible socio-economic and ethical effects. AI is seeing a sharp rise in industry investment, and governments are attempting to ascertain the potential implications of this technology for their constituents.

1.1 HUMAN RESOURCES MANAGEMENT

All managers must carry out the distinct and specialized task of human resource management. It is the area of management that deals with hiring, choosing, training, and making the most use of staff members. Therefore, human resource management guarantees that each worker contributes as much as possible to the accomplishment of company objectives. Since the industrial revolution, a number of important, interconnected changes have led to the creation of human resource management as it exists today. There was a clear need for someone to serve as a crucial liaison between workers and management as trade union activities gained momentum. Originally, a labour welfare officer would exclusively handle employee welfare-related tasks in this capacity. The factory system was introduced as time went on. Under one roof, thousands of people were employed. It had become necessary to hire an increasing number of workers.

And a person known as a "Personnel Officer" was assigned the responsibility of hiring and providing personnel for the company. His primary responsibilities included hiring, placing, and selecting staff. As time passed, the rapidly advancing technology landscape demanded that both new and current personnel receive new skill development and training. The human relations approach acknowledged that an organization's most significant resource is its people. Human resource management has to take the place of the conventional ideas of labour welfare and personnel management. HRM is currently in charge of all these areas, including hiring, placing, and worker welfare, among others. In light of the aforementioned, it can be said that the conventional ideas of labour welfare and personnel management.

1.2 HUMAN RESOURCE MANAGEMENT'S PRIMARY DUTIES INCLUDE

- (i) Determining out how many and what kinds of workers are needed.
- (ii) Hiring, choosing, and assigning staff members.
- (iii) Training staff members to advance their careers and perform better.
- (iv) Evaluations of performance

(v) Offering both monetary and non-monetary incentives to staff members in order to inspire them.

- (vi) Taking care of workers' complaints and ensuring social security for them.
- (vii) Protecting businesses from legal issues
- (viii) Building a cordial rapport between the management and the union.

1.3 ARTIFICIAL INTELLIGENCE IN HUMAN RESOURCE MANAGEMENT

Artificial Intelligence (AI) is revolutionizing Human Resource Management (HRM) through its ability to automate repetitive jobs, improve decision-making, and boost overall productivity. The following are a few ways AI is affecting HRM:



Recruitment and Hiring

1. Resume Screening: AI tools can quickly scan and filter resumes to shortlist candidates based on predefined criteria, reducing the time and effort required by HR professionals.

2. Candidate Matching: AI algorithms can match job descriptions with candidate profiles, ensuring a better fit between job requirements and applicant skills.

3. Chat bots: AI-powered chatbots can handle initial candidate interactions, answering common questions and scheduling interviews, providing a seamless candidate experience. Employee On boarding

1. Personalized On boarding Programs: AI can create personalized onboarding plans based on the new employee's role, skills, and preferences, ensuring a smoother transition into the company.

2. Virtual Assistants: AI-driven virtual assistants can guide new hires through the on boarding process, providing necessary information and resources.

Employee Engagement and Retention

1. Sentiment Analysis: AI can analyze employee feedback from surveys, emails, and social media to gauge morale and identify potential issues early.

2. Personalized Learning and Development: AI systems can recommend tailored training programs and career development paths based on an employee's performance, goals, and learning style.

Performance Management

1. Continuous Feedback: AI can facilitate real-time performance feedback through automated check-ins and performance tracking, moving away from traditional annual reviews.

2. Bias Reduction: AI can help identify and reduce biases in performance evaluations by analyzing data objectively, ensuring fairer assessments.

Workforce Planning

1. Predictive Analytics: AI can analyze historical data to predict future workforce needs, helping HR plan for recruitment, training, and development.

2. Talent Management: AI can help identify high-potential employees and create succession plans, ensuring the organization has the right talent in place for future growth.

Administrative Tasks

1. Automation of Routine Tasks: AI can automate repetitive administrative tasks such as payroll processing, leave management, and benefits administration, freeing up HR professionals for more strategic activities.

2. Document Management: AI-powered systems can manage employee records and ensure compliance with legal requirements, reducing the risk of errors.

Diversity and Inclusion

1. Unbiased Recruitment: AI tools can help reduce unconscious bias in hiring by focusing on skills and qualifications rather than demographic factors.

2. Diversity Metrics: AI can track and analyze diversity metrics, helping organizations develop and implement effective diversity and inclusion strategies.

Challenges and Considerations

1. Data Privacy and Security: Ensuring the privacy and security of employee data is critical when using AI in HR.

2. Ethical Use: It's important to use AI ethically, avoiding discrimination and ensuring transparency in how decisions are made.

3. Human Touch: While AI can handle many tasks, maintaining a human touch in HR practices is essential for employee satisfaction and engagement.

II LITERATURE REVIEW

Prasanna Vatsa and Kusuma Gullamjji (2019): It is made quite evident in the study "To Study the Impact of Artificial Intelligence on Human Resource Management" that improving organisational performance is a major benefit of integrating HR procedures with AI-based apps. According to the report, AI is used extensively in HR, including hiring, onboarding, training, performance evaluation, retention, and more. However, because of the integration expenses, many organisations are still behind in incorporating AI into their HR procedures.

Jennifer Johansson and Senja Herranen (2019): It is indicated in the paper "The Application of Artificial Intelligence in Human Resource Management" that not many organisations have fully integrated AI into the recruitment process, and that it is a relatively new area. The primary advantages of AI are thought to be increased output and speed as well as the removal of repetitive activities. But a significant obstacle is how prepared businesses are generally to accept new technologies.

Albert Christopher (2019): According to the author of the paper "Use of Artificial Intelligence in Human Resource Management," AI-based apps increase worker productivity. When AI is used to focus on the demands and results of employees, it can analyse, predict, diagnose, and become a more capable resource. Nevertheless, there are a number of obstacles to overcome, such as integration capabilities, personnel shortages, privacy concerns, and a lack of widely used applications. AI systems need to be handled properly, which includes locating trustworthy data sets, selecting the best implementation strategy, guaranteeing clarity, removing bias, and taking into account unintended outcomes.

Barbara Van Pay (2018):It is made quite evident in the article "How AI is Reinventing HR" that while the majority of organisations are searching for AI solutions for their operations, they are wary of giving up control of day-to-day operations to a machine. By screening a large number of applicants, obtaining information, and ranking them according to experience, skill set, and other factors to identify the best fit, AI helps firms shorten the time needed to fill and hire positions. Hiring the appropriate people quickly and efficiently is made possible by the widespread usage of AI interviewing technologies like HireVue and Mya, which handle the entire hiring process from sourcing to interviews and significantly shorten recruiting timelines. Anupam Jauhari (2017): In the paper titled "How AI and Machine Learning Can Affect HR Practices Today," it is stated that AI is becoming increasingly relevant and reshaping the way businesses operate. Recruitment is simplified for practitioners as machine learning technology uses chatbots to carry out activities, with AI screening candidates and sending confirmation or rejection emails. According to the analysis of India's report in Deloitte's 5th Annual Global Human Capital Trends, 53% of companies are ready to deploy digital tools, while 22% have already deployed them.

III RESEARCH METHODOLOGY

Research methodology describes the particular steps or methods that are used to locate, pick, organise, and examine data on a few subjects. The methodology part of a research article gives the reader the opportunity to assess the general validity and reliability of the study. Sociologists use a variety of qualitative and quantitative research techniques, such as secondary data, participant observation, survey research, and experiments. Classifying, counting, and creating statistical models to verify theories and provide an explanation for data are the goals of quantitative approaches. A comprehensive, in-depth account of observations, including the background of events and conditions, is the goal of qualitative approaches.

3.1 BJECTIVES OF THE STUDY

The objective of this study is to know the impact of Artificial Intelligence on Human Resource Management.

To identify the role of AI based software in hiring the best talent from industry .

To evaluate the function of AI based software specifically towards the screening process which is the primary process of hiring and cost of using such systems.

To understand the effect of AI based software on recruiters' job.

3.2 DATA COLLECTION

This study utilized both primary and secondary data. The primary data was gathered with the help of a structured questionnaire. The questionnaire was distributed to 250 respondents. After considering the reliability and the plausibility of the data, 162 completely filled questionnaires were used for data analysis. The secondary data was collected from articles, journals and PDF's. Primary and secondary data was interpreted and analyzed to arrive at logical conclusion.

IV DATA ANALYSIS AND INTERPRETATION

4.1 AI IN HRM



The data reflects a predominant emphasis on integrating AI elements into recruitment and hiring processes, comprising 54% of resource allocation, indicating a strategic investment in leveraging technology for talent acquisition. Following closely behind is HR strategy and employee management, allotted 35% of resources, demonstrating a commitment to fostering a supportive and effective work environment. Workforce automation receives a modest 6% allocation, suggesting a gradual adoption of technologies aimed at streamlining operational tasks. However, the analysis of diversity, inclusion, or related programs garners only 5% of resources, indicating a potential gap in prioritizing the evaluation and enhancement of initiatives aimed at fostering diversity and inclusion within the organization

HR Team Using AI	Not Using AI	Starting to Use AI	Fully Implemented AI
Employee Records Management	10%	80%	10%
Pay Processing and Benefits Administration	24%	65%	11%
Recruitment and Hiring	0	0	100%
Performance Management	24%	54%	22%
Company Culture Management	11%	78%	11%
Reward Management	12%	46%	42%
Management Talent Mobility	11%	46%	43%

4.2 HR DEPARTMENT USING AI



The table presents data on the adoption of AI across various HR functions in an organization, divided into three categories: "Not Using AI," "Starting to Use AI," and "Fully Implemented AI." For Employee Records Management, 10% are not using AI, 80% are starting to use it, and 10% have fully implemented it. In Pay Processing and Benefits Administration, 24% are not using AI, 65% are starting to use it, and 11% have fully implemented it. Recruitment and Hiring shows a complete adoption with 100% fully implemented AI and no usage in the other categories. Performance Management sees 24% not using AI, 54% starting to use it, and 22% fully implemented. Company Culture Management has 11% not using AI, 78% starting to use it, and 11% fully implemented. Lastly, Management Talent Mobility shows 11% not using AI, 46% starting to use it, and 43% fully implemented. This data highlights varying levels of AI integration, with Recruitment and Hiring being the most fully implemented and Pay Processing and Benefits Administration having the highest percentage starting to use AI.



4.3 SWTO FOR AI IN HRM

This data reflect that the impact of Artificial Intelligence (AI) in Human Resource Management across four key dimensions: Strengths, Weaknesses, Opportunities, and Threats. The strengths highlight a significant 56% improvement in productivity through digital redesigns of HR programs, aiding in talent acquisition, predictive analysis, and enhancing employee experiences.

Weaknesses, contributing to a 19% reduction in efficiency, include challenges such as organizational culture, limited application scope, talent gaps, and integration issues. Opportunities, marked by an 82% increase in retention and improved on boarding processes, emphasize the potential for rethinking recruitment, embracing automation, opening new job opportunities, identifying skill gaps, and focusing on strategic initiatives. However, threats pose a 58% risk to AI's top priority status due to privacy concerns, maintenance and backup challenges, reduction in blue-collar jobs, and potential data biases.

4.4 CHISQUARE

HYPOTHESIS

Null hypothesis (H0):

There is NO signification association between Artificial Intelligence and impact on HR Practices.

Alternative hypothesis (H1):

There is signification association between Artificial Intelligence and impact on HR Practices.

Chi-Square Tests						
	Value	df	ptotic <u>Significance(</u> 2- sided)			
Pearson Chi-Square	28.395 a	36	.001			
Likelihood Ratio	27.013	36	.001			
Linear-by-Linear Association	13.627	1	.000			
N of Valid Cases	162					

INTERPRETATION;

Since p value 0.001 is lesser than 0.05 an alternate hypothesis is accepted null hypothesis is rejected, hence there is significant association between Artificial Intelligence and impact on HR Practices.

4.5 One-way ANOVA

Null hypothesis (H0):

Ho- there is NO significant difference between the gender of respondent and their AI based software in hiring the best talent from industry

Alternative hypothesis (H1):

H1- there is significant difference between the gender of respondent and their AI based software in hiring the best talent from industry.

ANOVA							
GENDER							
	Sum ofSquares	df	Mean Square	F	Sig.		
Between Groups	0.460	2	0.230	0.976	0.379		
Within Groups	47.087	160	0.235				
Total	47.547	162					

INTERPRETATION

Since p value 0.379 is greater than 0.05 alternate hypothesis is rejected null hypothesis is accepted, hence there is no significant difference between the gender of respondent and their AI based software in hiring the best talent from industry.

V FINDINGS AND SUGGESTION

5.1 FINDINGS

1. The vast majority of businesses have integrated AI into their HRM procedures.

2. The respondents gave a favourable reaction, indicating that they would probably embrace the use of AI in HR-related tasks at different phases.

3. Third-party software, internal software, Omnidocs, Ezieka, and other programmes are used by organisations as AI software for HRM.

4. The majority of the organization is in favour of AI becoming the HR department's future.

5. Businesses that do not already use AI-based software would wish to do so in the future.

5.2 SUGGESTIONS

Based on the findings of this study, researchers would like to recommend that businesses create a clear and straightforward organisational approach to incorporate AI into their hiring procedure. Researchers suggest that smart AI technology be used by recruiters to replace simple and time- consuming jobs, freeing up recruiters and HR managers to focus more on strategic duties. Furthermore, in order for small and medium-sized businesses to use AI in their hiring processes, creators of intelligent AI technologies must create these platforms with consideration for their financial constraints.

5.3 CONCLUSION

There is definitely evidence that integrating AI-based HR activities for applicants has a bigger impact on improving the organization's productivity. These potent AI-based HR tools may be able to analyze, forecast, diagnose, and more—despite not having the same emotional or

cognitive capacities as people. They are an effective tool for any type of organization. However, the true worry plaguing the global workforce is the way AI is proving to have an adverse effect on employment across a range of global businesses. In actuality, though, it's not the sophisticated technologies that will eventually replace people; rather, it will be our ability to adjust to and make use of these advancements in order to build riches and prosperity.

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